

Table 3.8-2 presents a list of common and scientific names of plants present on the True North mining claims.

| Table 3.8-2 Common and scientific names of plants present on the True North mining claims | |
|--|---------------------------------|
| Common Name ¹ | Scientific Name |
| Paper birch | <i>Betula papyrifera</i> |
| White spruce | <i>Picea glauca</i> |
| Black spruce | <i>P. mariana</i> |
| Balsam poplar | <i>Populus balsamifera</i> |
| Quaking aspen | <i>P. tremuloides</i> |
| Shrubs | |
| American green alder | <i>Alnus crispa</i> |
| Thinleaf alder | <i>A. tenuifolia</i> |
| Dwarf birch | <i>Betula glandulosa</i> |
| Leatherleaf | <i>Chamaedaphne calyculata</i> |
| Crowberry | <i>Empetrum nigrum</i> |
| Narrow-leaf Labrador tea | <i>Ledum decumbens</i> |
| Labrador tea | <i>L. groenlandicum</i> |
| Bog cranberry | <i>Oxycoccus microcarpus</i> |
| Prickly rose | <i>Rosa acicularis</i> |
| Feltleaf willow | <i>Salix alaxensis</i> |
| Bebb willow | <i>S. bebbiana</i> |
| Grayleaf willow | <i>S. glauca</i> |
| Sandbar willow | <i>S. interior</i> |
| Diamondleaf willow | <i>S. planifolia-pulchra</i> |
| Beauverd spiraea | <i>Spiraea beauverdiana</i> |
| Blueberry | <i>Vaccinium uliginosum</i> |
| Lingonberry | <i>Vaccinium vitis-idaea</i> |
| Graminoids | |
| Bluejoint | <i>Calamagrostis canadensis</i> |
| Bigelow sedge | <i>Carex bigelowii</i> |
| Tall cottongrass | <i>Eriophorum angustifolium</i> |
| Tussock cottongrass | <i>E. vaginatum.</i> |
| Herbs | |
| Dwarf dogwood | <i>Cornus canadensis</i> |
| Club moss | <i>Lycopodium sp</i> |
| Meadow horsetail | <i>Equisetum pratense</i> |
| Woodland horsetail | <i>E. sylvaticum</i> |
| Tall Fireweed | <i>Epilobium angustifolium</i> |
| River Beauty | <i>E. latifolium</i> |
| Northern commandra | <i>Geocaulon lividum</i> |
| Grove sandwort | <i>Moehringia lateriflora</i> |
| Meadow bistort | <i>Polygonum bistorta</i> |
| Nagoon-berry | <i>Rubus arcticus</i> |
| Cloudberry | <i>Rubus chamaemorus</i> |
| No common name | <i>Saussuria angustifolia</i> |

¹ Taken from Viereck et al. (1992) and Welsh (1974).

3.9 WETLANDS

3.9.1 MINE AREA

Wetlands the True North mining claims were classified by Roth and Kidd (1996), Kidd and Rossow (1996), Kidd and Pullman (1997), and Pullman and Kidd (1998) from 1995 to 1998 according to guidelines outlined in Cowardin et al. (1979).

Taxonomic nomenclature followed Hultén (1968), with the exception of willows (*Salix* spp.), which followed Viereck and Little (1972). Soils were classified using the Munsell Soil Color Chart (1990, 1992), as well as Keys to Soil Taxonomy (Soil Survey Staff, 1992) and field Manual for Describing Soils (Bates et al., 1982).

Wetland determinations were made as described in the COE Wetlands Delineation Manual (USACOE, 1987).

Figure 3.9-1 and Table 3.9-1 present wetland types and National Wetland Inventory (NWI) classifications for the approximately 17,569 acres (7,110 ha) of the True North mining claims. There were 22 wetland types, plus the disturbed wetland / upland complexes. There were 42 NWI classes, plus two classes in the disturbed wetland/ upland complexes. Undisturbed wetlands covered just over half of the area surveyed (51.7 percent).

There were two dominant wetland types: the dwarf black spruce woodland / ericaceous shrub type covering 21.1 percent of the total area (41.3 percent of undisturbed wetlands) and composed of four NWI classes, and the black spruce forest / scrub shrub type covering 13.2 percent of the total area (25.8 percent of undisturbed wetlands) and composed of three NWI classes. Mixed riparian shrub / grained wetlands; shrub / sedge bog, shrub swamp, and floating mat; ponds and impoundments; and ephemeral and perennial streams also are present, and collectively represent less than 2 percent of the total area (3.8 percent of undisturbed wetlands).

















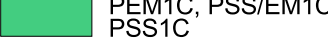





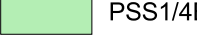
Uplands (48.3 percent of the total area) primarily consist of broadleaf and needleleaf forest. Revegetated tailing piles deposited in wetland areas were often dominated by deciduous shrubs and small trees.

Many of the scrub-shrub wetlands included stunted black spruce, which were classified as shrubs because their height was less than 10 feet (3 m). Most of these dwarf trees ranged from 3 to 6 feet (1-2 m) in height. Scrub-shrub black spruce wetland types generally contained an under story of both evergreen (e.g., Labrador tea and lingo berry) and deciduous (e.g., blueberry) ericaceous shrubs. Horsetail, sedge tussocks, and *Carex* sedges also commonly were present in the understory.

3.9.2 ORE HAUL ROAD

Most of the proposed road alignment is situated in upland areas. With the exception of one small area, all wetlands occur on north-trending slopes near Pedro Dome (Fig. 3.9-2). A small section (0.05 mi) of the road corridor consists of a mosaic of upland and wetland areas too small to delineate as separate units. A single intermittent stream crosses the proposed road corridor north of Pedro Dome (Fig. 3.9-2). The stream is small (30 cm bank to bank) and has a partially vegetated bed (ABR, 2000a).

Soils in the project area consist of silts to very gravelly silt loam over fractured bedrock. Uplands were distinguished by a lack of hydric soil indicators and ice-poor conditions in the frozen soil. On north-facing aspects, upland areas were nearly devoid of mineral soils, while wetlands in these area had relatively thick mineral soil horizons. Hydric soils in the project area consist of either histosols or mineral soils with gleyed or low-chroma colors present in the top 18 inches.

| NWI Class | Wetland Type | NWI Class | Wetland Type |
|---|--|--|--|
|  R4SBC | Intermittent Stream |  PSS1/3B, PSS3/1B, PSS3B | Ericaceous/Deciduous Shrub |
|  R3UBH | Upper Perennial Stream |  PEM1B, PSS/EM1B, PSS3/EM1B | Shrub/Sedge Bog |
|  PUBH | Pond |  PSS1/4B, PSS4/1B, PSS4/EM1B | Dwarf Black Spruce Scrub/Deciduous Shrub |
|  PUBHh | Impoundment |  PSS3/4B, PSS4/3B, PSS4B, PSS5/3B | Dwarf Black Spruce Woodland/Ericaceous Shrub |
|  PEM1H | Graminoid Marsh |  PFO/SS4B, PFO4/SS1B, PFO4/SS3B | Black Spruce Forest/Scrub Shrub |
|  PEM1F | Floating Mat |  PFO4B | Black Spruce Forest |
|  PEM1F//PSS4B, PSS3/EM1F | Shrub/Sedge Bog/Floating Mat |  PFO1/4B, PFO1/SS4E, PFO4/1B | Mixed Spruce/Deciduous Forest |
|  PSS/EM1F | Shrub Swamp |  PFO1D, PFO1/SS3B | Broadleaf Forest |
|  PEM1C, PSS/EM1C, PSS1C | Riparian Deciduous Shrub |  PEM1E, PSS1/USC, PUSCd | Barren/Partially Vegetated |
|  PSS3C | Riparian Ericaceous Shrub |  U//PSS1C//PEM1E, U//PSS4//EM1B | Disturbed Wetland/Upland Complex |
|  PSS/EM1E, PSS1B, PSS1E | Deciduous Shrub |  U | Upland |
|  PSS1/4E | Deciduous Shrub/Dwarf Black Spruce Scrub | | |

